

**GDS-50 秒表检定仪**是一最新用的时间检定仪，供各级计量部门，工厂，院校及科研单位检定各种秒表、毫秒仪，机械秒表等，性能符合检定规程的要求。

技术指标：

1、 检定电子秒表和机械秒表：

在 1—99999 秒内可任意置数

准确度 $\pm (2 * 10^{-7} * \text{输出时段})$  秒 $\pm 0.003$  秒

2、 检定电子毫秒仪（正负两组输出）

在 1—99999 秒内可任意置数，最小输出 100 微秒

准确度 $\pm (2 * 10^{-7} * \text{输出时段})$  秒 $\pm 0.003$  秒

3、 检定电秒表（适合新规程 JJG237-95）

在 1—99999 秒内可 任意置数

指针式准确度：电同步 $< \pm 0.6$  毫秒

数字式准确度： $\pm (2 * 10^{-7} * \text{输出时段})$  秒 $\pm 0.006$  秒

## Introduction

The calibrator is a precision instrument calibrating mechanical stopwatch, electronic stopwatch, and 405/407/408/415/417 type pointer electric stopwatch. The SF2001 stopwatch calibrator is compliant with the stopwatch calibration procedure JJG 237-2010 issued by the National Metrological Bureau. It could be used at metrological department at all levels, factory, institutions and all research institutes to calibrate electric stopwatch (405,407,408,415/417), mechanical stopwatch and digital quartz electronic stopwatch. The instrument is fully digitally controlled, high reliability, high accuracy, complete functions, convenient operation, and strong anti-interfere ability.

## **GDS-50 stopwatch calibrator and its accessories:**

- |                               |          |
|-------------------------------|----------|
| 1)GDS-50 stopwatch calibrator | 1 piece  |
| 2) Three-core power cord      | 1 piece  |
| 3) Dual banana plug test lead | 2 pieces |
| 4) BNC-banana test lead       | 1 piece  |
| 5) Soft copy of User's Guide  | 1 piece  |

## **Main Parameter**

---

### **1.1 Crystal Oscillator**

Nominal frequency: 10MHz

Daily aging rate:  $\leq 5 \times 10^{-9}$  /day

Second stability:  $\leq 5 \times 10^{-10}$  /s

Accuracy:  $\leq 1 \times 10^{-7}$

Warming-up time: over 2 hours

**1.2 Calibrate mechanical stopwatch and electronic stopwatch** (T0 is inputted calibration period of time)

Input range: T 0 :1s-99999s

Accuracy: better than  $\pm(1 \times 10^{-7} \times T 0 + 3\text{ms})$

**1.3 Calibrate electric stopwatch**

Pointer:

Input range:

Continuous: T 0 :0.1s-99999s

Trigger state: T 0 :1s-99999s

Pause state: T 0 :0.1s-99999s

Accuracy: better than  $\pm(\text{commercial power frequency accuracy} \times T 0 + 0.6\text{ms})$

**1.4 Calibrate millisecond counter and digital electric stopwatch**

Input range: T 0 : $1 \times 10^2 \mu\text{s}$ - $1 \times 10^9 \mu\text{s}$

Accuracy: better than  $\pm(1 \times 10^{-7} \times T 0 + 3 \mu\text{s})$

The SF2001 calibrator is fully compliant with the mechanical stopwatch and digital quartz stopwatch calibration procedure, electric stopwatch calibration procedure, and electronic millisecond counter calibration procedure, issued by the National Metrological Bureau.

### **2.1 Working conditions**

Voltage: 220(1 $\pm$ 10%)V;

Frequency: 50(1 $\pm$ 5%)Hz;

Power consumption: <60VA;

Temperature : 0~40°C;

Humidity: <80%

### **2.2 Mechanical characteristics**

Dimension: 329mm $\times$ 283mm $\times$ 155mm Weight: 3.7kg

**2.3 Operation characteristics:** Input with keys, menu display

**2.4 Display mode:** LCD display,English menu

**2.5 Technique:** With SMT technique and large-scale IC, the calibrator is of high reliability, small volume and long service life.